**IWHG** 



## 2024

#### **Patron: Trudie Sumner**

# IWHG

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## Welcome

Welcome to the IWHG Newsletter and a rather belated Happy New Year.

First of all one of the biggest thrills of 2023 was our own Dr Maura Lyons winning the BCE Award and a prize of £5000 for the Health Group, what a boost that has been and congratulation to Maura.

In recent years, the Health Group's focus has become supporting and maintaining the Breed Heart Screening Scheme. Wendy Reeves continues to organise the sessions bringing together hosts and cardiologists and Anne Vaudin taking care of the booking system. So much hard work goes into this, and we can only say how grateful we are for everyone who pulls together on this scheme to make it happen.

Covid seemed to trigger more difficult financial times for everyone and rising costs have made it difficult to keep the scheme viable. We have been incredibly fortunate to have access to heart testing for so many years with dedicated cardiologists supporting us, and thankfully continuing to do so.

As costs have risen, and more sharply than in years past, we now find that the scheme is not selfsustaining as it used to be. In this newsletter, there will be a further explanation, but suffice it to say the costs for the test have increased by £25.00 to £100 per dog, and we anticipate further increases next year as we try to keep up with costs.

It is so critical to ensure that companion hound owners as well as show/breeders can access this basic test. Some of the funds raised by the Health Group must now go to supporting the program.

It is evident that heart screening is proving to be successful, as indicated in an article by Prof. Malcolm Cobb and Dr Serena Brownlie, which is published in this Newsletter. It is important that we continue pushing forward with our sessions although it is hoped that at some point the Kennel Club will include our breed

within its own heart screening scheme know that this is far in the future, but it remains a working point for the group.

Pneumonia continues to be one of the most worrying conditions, with tragic cases still appearing on social media. If you have experienced this in the past year, please fill out a survey. Only through this method can we gather evidence to show that treatment for this should take place quickly in the primary care setting.

Caroline Sheppard and Helen Ward have contributed a great article on Discospondylytis to this issue that we hope you will find useful and interesting.

We hope that 2024 will be a healthy and happy year for you all and your lovely hounds.







Issue

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Heart Screening sessions are now complete for 2023. In all 22 sessions were held screening a total of 247 hounds. Although we had extra sessions this year the number of hounds tested was down on 2022.

Six fantastic cardiologists are willing to work with us to provide heart screenings for our breed and results continue to be fed back to Dr Serena Brownlie to be included in the wider study.

clear evidence There is that Dilated Cardiomyopathy in Irish Wolfhounds in the UK is now rarely seen in clinical settings. We believe this shows the positive effect of screening both in ensuring that dogs are tested as normal before breeding and also critically any signs of heart disease in a hound are caught early and treated effectively. We are now able to share an article by Dr. Serena Brownlie and Prof. Malcolm Cobb detailing their findings and is included within this newsletter.

As expected, costs are still rising and the heart screening programme made a loss of £6,360 in 2023. Consequently, due to outgoings increasing in 2023 and being forecast to rise further this year, the individual screening fee has increased to £100 per dog for 2024. However, the IWHG scheme remains excellent value for money. A similar three part test carried out via an independent cardiology practice, can cost anything from £250 - £600.

The IWHG, IW Rescue Trust, and IWC will continue to subsidise heart screenings for older and rescued hounds for a further year.

We hope everyone will continue to support the scheme and ensure that the sessions are well filled. We are unable to run these sessions if there are insufficient numbers to fill them.

Dates for 2024 are posted on the Health Group website and notified to owners who have requested email alerts for sessions planned this year. If you haven't already requested an automatic email please go to our website.

Dates and locations - IRISH WOLFHOUND HEALTH GROUP (iwhealthgroup.co.uk)

Thank you everyone for your support and we wish you and your hounds good heart health in the coming year.

TOTAL HOUNDS SCREENED	247
SUPERVETS PAID BY HG	14
SUPERVETS PAID BY OWNER	3
SUPERVETS - 2nd test, 50/50	
owner/IWC	7
SEVEN YEAR OLDS - 1 test, 50/50	
owner/IWC	20
RESCUE HOUNDS PAID BY IWRT	8





#### Prof. Malcolm Cobb – Comparative Medicine, University of Nottingham

#### Dr Serena Brownlie, PhD BVM&S Cert SAC

There have been several studies investigating the genetic basis of canine DCM but despite this, very few genetic associations have been identified. Possible reasons for the lack of identified genetic associations include the use of inappropriate populations, incomplete control clinical characterisation of control and affected populations, inadequate samples sizes, or an assumption of simple- Mendelian inheritance, despite the evidence suggesting more complex multi-factorial influences on heritability.

In addition to commonly being diagnosed with DCM, IWHs are frequently diagnosed with AF. Despite the presence of AF in a large percentage of dogs with DCM, the mechanistic and clinical relationship between DCM and AF has not been clarified. Although AF is not associated with the development of DCM in people, the presence of AF in people with DCM and heart failure has been shown to negatively influence survival. If AF is a potential precursor to DCM, the time from diagnosis of AF to DCM is important, if it is several years then the presence of AF could be less of a concern than if it is merely a few months. In addition to the potential clinical implications of AF diagnosis and potential early interventions for both dogs and humans, if AF can be shown to be related to DCM for genetic association testing, this diagnosis can be used to test for associated DCM genetic implication. This also has implications for individuals included in the unaffected group for genetic association testing; individuals included in the unaffected group must be free of both DCM and AF.

There is evidence that DCM affects males more often, and/or earlier in life than female. If the age of onset, differs between males and females, the age at which an unaffected individual can be included in the unaffected group for genetic association studies should also be different for males and females. If DCM affects males more often than females or there are differences in the age of onset this raises important questions as to why there might be a difference between the sexes in age or frequency of onset.

A recent Nottingham Vet School study (Simpson *et al*, Biomed Research International) statistically tested the relationships between DCM and AF, sex differences in disease prevalence and age of onset, and the use of multiple genetic loci to establish genetic associations in IW's.

#### **DCM and AF relationship**

The time from AF diagnosis to DCM diagnosis in the group of individuals diagnosed with both AF and DCM was not significantly different from the time for which individuals only diagnosed with AF had been known to have that diagnosis. The majority (80.5%) of individuals with DCM also had a diagnosis of AF. Most individuals were diagnosed with AF at the same time as DCM, or in the 2 years prior to the diagnosis of DCM, which indicates that AF may be a precursor to a clinical diagnosis of DCM. This provides evidence that individuals diagnosed with AF should be carefully monitored and regularly presented for heart testing to ensure that they do not yet require treatment for DCM.

## Sex differences in numbers affected and age of disease onset

There was no difference in the proportion of males and females affected by DCM/AF combined. There was a significant difference between males and females in the age of diagnosis of DCM/AF combined. DCM/AF combined mean age at diagnosis was 4.82 years for males and 6.14 years for females.

Of males that developed AF or DCM, 80% had done so before the age of 6.5 years, while 80% females that developed AF or DCM, did so before the age of 8.5 years. Using this information, it is therefore possible to define the 'unaffected' group with a high level of stringency and specificity, in addition to enhancing the knowledge on sex related differences in age of clinical diagnosis

#### **Genetic associations**

Mutations in more than 50 genes are associated with human dilated cardiomyopathy (DCM), yet very few are also associated with canine DCM. Furthermore, none of the identified canine loci explain many cases of the disease and previous work has indicated that genotypes at multiple loci may act together to influence disease development. DNA was extracted from buccal swabs from 379 IW's. This study identified loci significantly associated with the disease individually, but no genotypes individually or in pairs conferred a significantly greater risk of developing DCM than the population risk. However, combining three loci together did result in the identification of a genotype which conferred a greater risk of disease than the overall population risk. This study suggests multiple, rather than individual genetic factors, cooperate to influence DCM risk in IW.

#### Heart testing update – 1999 revisited.

Heart testing of IW's has been carried out for over 30 years to test dogs for the presence of cardiac abnormalities. The ages of the dogs in months with their kennel club name are recorded as well as the date of examination along with details of the sire and dam for each animal. The results of a physical examination, ECG results and echocardiographic measurements are all recorded. The first study published in 1999 found a prevalence of atrial fibrillation (AF) in the breed of 11.60% and a heart failure prevalence of 3.91%.

The same analysis has been repeated for dogs examined for the first time between 2015 and 2019 (thanks to Nottingham vet School graduate Aimee Duncan who did the analysis as part of her undergraduate project). The number of dogs with AF at first examination was determined with investigation into their ages as well as dogs which developed AF later in life, along with how long the dogs took to develop this dysrhythmia. The number of dogs who developed heart failure and were consequently put on medication was also recorded.

In addition, data from dogs examined between 2010 and 2014 was also reviewed to determine whether a progressive change in the prevalence of abnormalities over the 10-year period was evident.

Obviously there are a lot of caveats here. Prevalence seemed to rise in 2010-2014 cohort – perhaps because there was more testing done after the initial work was published but seems to have fallen recently. This suggests testing has had an effect on the prevalence of the disease, and the results are encouraging suggesting that the programme is benefiting the breed, the halving of numbers of dogs developing heart failure is particularly encouraging.

The results are shown in the table below.

Year(s)	Number of dogs	%age of dogs examined that	%age of dogs examined	%age of dogs examined
	having first	had AF	that had developed	that had abnormal cardiac
	examination		heart failure	rhythm
1999	995	11.6	3.9	22.0
2010 - 2014	527	15.6	4.2	41.8
2015 - 2019	361	9.1	1.9	21.6



The accounts for the year to **31**<sup>st</sup> **December 2022** have now been approved and will be published on our website.

At the end of 2022 the balance sheet stood at **£40,746** (2021: £43,370).

This comprised:

- the **Project Development Fund** with a balance of **£12,670** (2021: £15,294)
- the Osteosarcoma Fund with a balance of £10,576 (2021: £10,576)
- the Pneumonia Fund with a balance of £2,000 (2021: £2,000)
- the Heart Testing Scanner Fund with a balance of £15,000 (2021: £15,000)
- the Administration Account with a balance of £500 (2021: £500)

During the year, £143 was reallocated from the Project Development Fund to the Administration Account to top up the Administration Account to £500. A further £975 was allocated to the Heart Testing Account to cover the cost of Super Veterans' heart testing.

Regional Heart Testing realised an overall deficit of £3,304 in the year due to the increase in costs not being fully covered by the increase in session fees. A subsidy of £975 was provided from the Project Development Fund for Super Veterans heart testing, which in 2022 continued to be free of charge. The funding priorities identified for the Project Development Fund for 2023 are as follows:

• Allowance for Super-Veteran Heart Testing subsidies 2023 - set aside £1,000

We would like to thank our fundraisers, donators and supporters for helping to generate donations of  $\pm 2,112$  in 2022.

Direct donations amounted to £240 with a further £646 generated by Easyfundraising donations.

Mandy Addington raised the amazing sum of £1,175 from the sale of calendars and cards, raffles and the sale of Irish Wolfhound Community merchandise.

We would also like to express our continued gratitude to all those who donate, either by monthly standing order, direct donations, Easyfundraising or supporting the fundraisers who do a fantastic job in raising such tremendous sums for the Group.

Steven Ritchie IWHG Treasurer December 2023



#### SCOTTISH SCIENTIST WINS INTERNATIONAL AWARD FOR DEDICATION TO IMPROVING IRISH WOLFHOUND HEALTH

Dr Maura Lyons from Forfar, Scotland, has been announced as winner of the International Canine Health Awards 2023 in the Breed Health Co-ordinator category, in honour of her work improving the health and welfare of Irish Wolfhounds.

Dr Lyons is the Breed Health Co-ordinator for Irish Wolfhounds; her role involves being the main point of contact between The Kennel Club and the Irish Wolfhound Health Group (IWHG) to help spearhead research and development, and increase awareness of vital health schemes to a variety of audiences, including scientists, breeders, everyday owners and the wider public, to help improve the wellbeing of this unique breed. Her role in raising awareness is something particularly important for the lesser-known Irish Wolfhound, which is the biggest of all dog breeds in size, but not in population, as they remain on The Kennel Club's Vulnerable Native Breeds list, with fewer than 300 annual puppy registrations per year in the UK.

Maura has owned Irish Wolfhounds as pets for nearly 30 years. Outside of her work for the IWHG, Maura holds a degree in botany and a PhD in molecular genetics and works as a laboratory manager in a tissue culture laboratory. A key focus of the IWHG has been improving treatment of pneumonia in Irish Wolfhounds. The breed do not present the same symptoms of infection as other breeds, however, treatment is most effective when recognised quickly, otherwise the infection can become fatal. The IWHG collaborated with a researcher to collect case studies and produce specialised pneumonia treatment guidelines to increase awareness of the symptoms and have recently created a pneumonia taskforce to further accumulate information on the infection. Dr Lyons has dedicated her time to disseminating these life-saving guidelines among veterinary professionals and everyday owners which has resulted in saving countless lives of Irish Wolfhounds.

Irish Wolfhounds also present with heart disease differently to other breeds, so a heart screening programme was developed 37 years ago and the IWHG has been working to develop and increase accessibility to this. The group now provides the service to over 250 Irish Wolfhounds annually across over 20 different regions. Dr Lyons works to promote and expand the scheme encouraging both reputable breeders and everyday owners to take up regular screening opportunities and share their results. Data collection from the screening programme is credited with the recognition that Irish Wolfhounds with dilated cardiomyopathy (DCM) do not show the same symptoms as in other breeds, further helping with earlier detection and treatment.

Dr Lyons also investigates and collates information herself and leads on updating the Breed Health Conservation Plan through conducting breed health surveys at regular intervals. In addition to her work for the IWHG in the UK, Dr Lyons is also a founding member and trustee of the Irish Wolfhound Database project (<u>IWDB.org</u>) which curates valuable health information and pedigree data on more than 170,000 Wolfhounds internationally to the benefit of researchers and breeders.

On being informed of winning the award, Dr Maura Lyons said: "I am absolutely delighted to have been chosen as the winner of this prestigious award. This award will mean the Irish Wolfhound Health Group can continue to offer affordable heart screening sessions for all Irish Wolfhounds throughout the UK.

Dr Nick Blayney, who Chairs the selection panel for the Breed Health Co-ordinator Award, said: "Dr Maura Lyons wonderfully exemplifies the vital role Breed Health Co-ordinators have in improving the health and welfare of our much-loved breeds. Dr Lyons' work in improving the awareness of health issues in Irish Wolfhounds on both the veterinary side and public side is invaluable.

"We were excited to read about her plans to put the prize money towards expanding the breed's heart screening scheme and analysing the results, further research into pneumonia cases, creating a database of vaccination data and further developing the group's health webinar series."

Vernon Hill, founder of Metro Bank, and whose major gift from the Vernon and Shirley Hill Foundation underwrites the awards, said: "Dr Maura Lyons work with the Irish Wolfhound Health Group in improving the health of this unique breed is clearly evidenced through these incredible results. It is inspiring to see her passion for the breed and how she has collaborated with so many different groups – I look forward to hearing how she continues to protect and improve the health of this wonderful native breed."

#### Discospondylitis and our personal experiences with it

(**Discospondylitis** - bacterial or fungal infection of the intervertebral discs and adjacent vertebral bones) From the Greek - Disko (disc) – Spondylos (vertebra) – itis (inflammation)

written by Caroline Sheppard & Helen Ward

Chloe's story

My interest in this condition began in 2008, after Clive and I had bred the second Goldswift litter. At just under 2lbs each at birth(!) Emily's five bitch pups were very healthy and all thrived throughout their rearing. By six weeks they were showing strong, free movement, with a well-co-ordinated "1,2,3,4" gait, no bunny hopping, stiffness, or weakness. Four went to experienced homes with people we already knew and Bliss stayed with us, eventually succumbing to pneumonia, just short of her 10<sup>th</sup> birthday.



We kept in contact with the owners and met up regularly. Unfortunately, during the first few months in their new homes, three of the pups damaged the ends of their very long, heavy tails (which dragged on the ground). The wheaten pup in the litter Chloe, sustained the least tail damage and hers was sufficiently healed to begin showing. She looked set to be something of a star for her owner Maureen, but after initial success, she began to show intermittent slight lameness - sometimes in her right hind leg, sometimes her left. We and the vets put it down to a mild form of panosteitis and she was prescribed antiinflammatories.

After a month or so, when there was a worsening of symptoms, she was referred to a well-known, local orthopaedic vet hospital for X-rays. We were devastated to be told that Chloe had a congenital deformity of one side of her pelvis, and the growth plates in the corresponding hind leg had prematurely closed. This specialist told us that pelvic surgery was unlikely to be successful, that severe arthritis and muscle wasting would develop and she would probably need to be euthanized before her 1<sup>st</sup> birthday! We were so stunned and upset by this news, we didn't think to ask the obvious questions, such as:-

- why her lameness shifted between her left and right hind legs
- how she had been able to run, jump, play and be completely sound, until she was 7 months old
- how she had developed evenly distributed muscle in her hindquarters and loin, back and legs

For the next three months, Chloe's owners watched their beautiful girl be in increasing pain and experience more difficulty getting up. She became listless and depressed. Then one day I had a phone call to say that Chloe's hind legs seemed to have improved, but that she was now lame on a front leg! Some days later, I visited and it was clear that Chloe's pain was in her neck. So another vet appointment was arranged at a different surgery. This vet was brilliant. He watched Chloe walk, gave her a thorough examination, then he looked at the previous X-rays and his mouth fell open. Chloe had clearly not been held straight on the table, rendering all the X-rays completely useless and leading to a misinterpretation by the 'specialist'.

The new vet suspected that the issue was in her spine and immediately took X-rays of her spine, pelvis and hind legs. All of these showed normal skeletal development - no sign of congenital deformity, or growth plate abnormality. However, he was able to see that she was suffering from a spinal infection. He showed us where the inflammation was and where a pocket of pus had collected, which was pressing on her spinal cord. He explained that it was due to a "rare" condition called Discospondylitis - treatable with a long course of high dose antibiotics, alongside initial pain relief. He emphasised how lucky Chloe was that the infection didn't appear to have caused permanent damage to her spine. Whilst we were relieved that Chloe's condition was in fact treatable, the vet was

so incensed at the specialist's misdiagnosis, he paid for a motorcycle courier to collect copies of the X- rays and deliver them to the vet hospital, along with a strongly worded letter. After completing a 3 month course of antibiotics, Chloe totally recovered and was able to return to the show-ring. She had much success, before her tail became damaged again, necessitating a partial amputation. She lived a healthy, active life with no recurrence of any spinal problems. Over the past 15 years, I have had first hand involvement with a



further six cases of Discospondylitis in Irish Wolfhounds belonging to friends and in a rescued Newfoundland, which sadly resulted in a fatality. I know of at least another dozen cases in IWs and many more in other breeds.

Caroline Sheppard

#### The start or our journey

Our Lyra Silvertongue was a fit, happy, healthy Wolfhound puppy, until she reached 6 months. We were watching her diet calcium/phosphorus ratios, exercise and play was carefully monitored, everything looked to be going exactly as we all hope with these pups. She had no infections that I knew of up until this point, no cuts, scrapes or



scratches. So, when she first started to struggle to move freely I was puzzled... Within a few days she went from being a playful pup, to moving like an older hound who was slightly stiff, to screaming out in pain whenever she tried to get up or lie down. It was truly awful to see our beautiful puppy looking scared and not knowing why she hurt. I could see that when she tried to rise from a lying down position, she would cry out, and try to look towards her back as though she thought someone was stabbing her.

Brig & Lyra

It helped that I have done a lot of work over the past 6 years in canine massage and canine EMMETT, so I could see the issue was somewhere in the shoulder blades/neck region. We took her straight to the local vet who only looked at her front legs. He seemed to have no idea what was going on an tried to push us out with NSAIDs (Metacam) which I wasn't at all happy about. Obviously she did need some pain management, but we also needed to search for the source of this pain.

I have an intense dislike of treating blindly. So after a talk my good friend Caroline, who had seen these symptoms before and knows Wolfhounds very well, I decided to see a second vet and push for a more thorough investigation. The second vet actually laughed at me for suggesting Discospondylitis, dismissing my suggestions. Frustratingly, Lyra was determined to be stoic and didn't show significant signs of pain on examination. He couldn't feel any swelling or heat, so despite explaining that the pain could be intermittent sudden and severe and showing him a video of her at her worst, he just ignored my concerns about her neck.

After a week of frustration, I was lucky to get a cancellation with my usual vet who gave Lyra a good examination. I asked her for her thoughts on the chances of it being Discospondylitis. She agreed that the area of discomfort and slight heat I had pointed out on Lyra's spine did appear very suspicious and referred us to a specialist for further tests. Thankfully the specialist had some experience with Wolfhounds, but all the issues he had seen were with to do with growth plates being damaged after over exercising with bad diets being a contributing factor. He was sure this was the case with Lyra! As before, I was laughed at and dismissed when I mentioned Discospondylitis, because it is apparently very rare and in his years in practice, he had never seen a case. However, we did agree that Lyra's condition required an in-depth investigation, but this would require Lyra being placed under general anaesthetic.

Knowing how sensitive our hounds are to anaesthetic and sedation, I made sure that I gave the specialist the Wolfhound protocol for GAs. He was insulted and proceeded to tell me a lot of scary stuff about how he was sure he was going to be operating on the front legs. I asked him to please look closely at Lyra's spine in the lower neck area, just for my peace of mind if nothing else. He did finally put me at ease with his knowledge about Wolfhounds and their reactions to medications, being as he put it that they are similar to athletes of the human world. I made sure Lyra was comfortable before leaving her in their hands for a couple of hours and waited for a phone call. Withing the hour the specialist called, he started by saying he had to admit to being totally wrong in his assumption and I was right. Lyra had Discospondylitis !!



Collapse and tissue proliferation at T5-T6

He then went on to stress how important restricted movement would be in the coming weeks/months as the spine in the infected areas was vulnerable to breakage. A very long course of strong antibiotics would be starting immediately and under no circumstances should we stop the antibiotics until further tests were done to check the affected areas, as even one bacterial cell left in the spine could result in the infection resurfacing as aggressively as when first diagnosed. The general recommended treatment time can be anything from 12 to 52 weeks of antibiotics for bacterial Discospondylitis.

#### Lyra's Treatment

- \* Antibiotics -Clavaseptin Tablets 500mg 2 tablets per day
- \* Probiotic supplement RestorFlora from Microbiome labs UK 1 per day
- \* Milk thistle daily
- \* Immune-flex deer velvet to keep her immunity strong while on the antibiotics

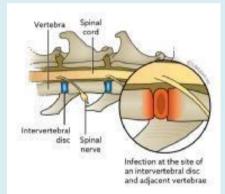
At around the 12-week stage we did stop the antibiotics to see how she was doing, mainly because I was reluctant to put Lyra through another set of sedation and x-rays, but within 2 days she was again in immense pain, so the antibiotics continued until a final set of x-rays provided the all clear some 18 weeks later. Knowing our own hounds is so important, along with being strong and standing our ground in front of the 'white coats' when we know something is wrong. Don't be afraid of being laughed at when voicing your personal thoughts and concerns, because it could save your hound's life!

Helen Ward

#### Further information about Discospondylitis

Helen and I hope that you will find the following information useful when considering whether Discospondylitis is a possible diagnosis for your hound.

Having been made aware of many more confirmed cases of Discospondylitis since Chloe was so poorly, it seems fair to conclude that Discospondylitis is nowhere near as rare as some vets think. It is more likely that it may be overlooked, or potentially misdiagnosed as something else. Unfortunately, long delays in appropriate treatment can lead to irreparable damage to the spine, which is what happened in Elsa's case (the Newfoundland referred to in Chloe's story).



- **Discospondylitis** is a bacterial or fungal infection of the intervertebral discs and adjacent vertebral bones. Intervertebral discs lie in between the vertebrae in the spine. Discospondylitis may occur at one location within the spinal column, or at multiple sites.
- **Spinal Epidural Empyema (SEE)** or spinal epidural abscess, is a suppurative septic condition which very occasionally, can be found concurrently with Discospondylitis. The signs and symptoms are similar to those of Discospondylitis, as is the method of infection.

The symptoms of Discospondylitis can mimic several other conditions of the joints and spine, such as:

- Intervertebral Disc Disease (IVDD) – degeneration of the vertebral discs, which can cause compression of the spinal cord.
- **Degenerative Myelopathy (DM)** also known as Chronic Degenerative Radiculomyelopathy (CDRM)
  - a disease affecting the spinal cord.
- **Spondylosis deformans**\* a non-inflammatory degenerative condition affecting the vertebral bones, characterised by the presence of bony spurs (osteophytes) along the edges and underside of the spinal vertebrae.

#### However, these conditions are most often found in older dogs.

NB \*Spondylosis (deformans) should NOT be confused with Spondylitis.

(The suffix "-osis" indicates a 'disease or condition', whilst "-itis" means 'inflammation of') Spondylosis is degenerative condition, whilst Spondylitis is simply the term used for an infection which has only affected the vertebrae and not the vertebral discs.

There is little knowledge pinpointing the origins of how the infection starts in individual cases, but it is mostly found in young to middle-aged, large and giant breed dogs. In very young dogs, the cause could even originate from as far back as in the nest. Males that are predisposed to prostate gland infections can be more vulnerable to discospondylitis. Chronic skin disease and suppressed immunity may also be pre-disposing factors.

- **Blood-borne spread** is the most common route of infection and can arise from urinary tract infections, dental extractions, bacterial endocarditis, or any chronic infection.
- **Direct contamination** can occur from a deep bite, or puncture wound directly over the spinal column.
- A migrating foreign body (such as a grass awn) can travel towards the spine after inhalation, ingestion, or via a penetrating wound.
  If the foreign matter contains bacterial or fungal contamination, discospondylitis may result.
- **Previous trauma or surgery** can occasionally result in bacteria invading the skeletal structure.

#### Signs and symptoms can include any or all of the following:-

- Back/neck pain or stiffness
- Reluctance to rise
- Hunched back
- Low head carriage
- Yelping when touched, or when moving
- Lameness
- Weakness
- Incoordination
- Fever

- Depression
- Inappetance
- Abdominal pain
- Weight loss
- Paralysis in one or more limbs
- Poor reflexes
- Shaking/Tremors
- Staggering
- Collapse

#### Diagnosis

Although the discs themselves cannot be seen on an X-ray, Discospondylitis is often diagnosed via this method, as changes in the vertebrae adjacent to the affected disc(s) can be seen. However, these changes are not visible on X-ray until 3 – 6 weeks after the initial onset of clinical signs. CT, MRI, or bone scintigraphy are more sensitive (though more expensive) diagnostic tools.

#### Treatment

Your vet may decide that the type of infection needs to be confirmed via blood and/or urine tests, in order to prescribe the best antibiotic. A number of bacteria and fungi can cause infection leading to Discospondylitis. However, a broad spectrum antibiotic is usually the first line drug of choice and is widely effective.

Antibiotics are always prescribed for at least 3 months and in many cases continued for 6 months, with some infections requiring a 12 month course to ensure there is no recurrence. X-rays can be used to monitor response. However, as bone changes take time to occur, they also take time to resolve.

Therefore, clinical resolution may be evident several weeks prior to A clear X-ray. Pain relief should also be prescribed and will depend on the degree of pain and overall health of your hound.

Should there be no significant improvement of symptoms whilst treating with antibiotics, then the much rarer **fungal** Discospondylitis, should be suspected. This is usually diagnosed by a spinal tap.

#### Dacteria

- Staphylococcus intermedius
- Staphylococcus aureus
- Streptococcus spp
- Escherichia coli
- Brucella canis
- Pasteurella canis
- Proteus spp
- Pseudomonas aeruginosa

#### Fungi

- Aspergillus terreus
- Paecilomyces variotii
- Scedosporium apiospermum

In rare cases surgery may be required to explore, flush and

remove any foreign material. Disc decompression can also be performed to relieve pressure on the spinal cord.

#### Prognosis

Dogs affected by most types of bacterial Discospondylitis usually have a favourable prognosis and cases should resolve completely with early and aggressive treatment.

Brucellosis infection and fungal Discospondylitis have a more guarded prognosis. Brucellosis cannot be completely cured, but can be successfully managed with long-term antibiotics.

Not all dogs respond to the medication for fungal Discospondylitis, but most do. However, they may require lifelong treatment.

Not all dogs respond to the medication for fungal Discospondylitis, but most do. However, they may require lifelong treatment.

It is vitally important that any, otherwise unexplained, pain in the back/neck, stiffness, lameness, or weakness, which doesn't respond to rest and pain relief, should be fully investigated. Discospondylitis should always be considered as a differential diagnosis and not dismissed as "too rare" to be a possibility.

Further reading, including information and imaging from Lyra's vet report and a fact sheet will be added to the IWHG website.

## How Can You Contribute to Health Research in Irish

### Wolfhounds? Dr Maura Lyons, PhD, IWHG Research Co-ordinator

The IWHG is involved with or coordinating various different research projects in Irish Wolfhounds, many are still ongoing and need your help. This is a list of the current projects. Take a read through the following list and see if you and your hound can help contribute to research helping to maintain and improve the health status of the breed.

#### Nottingham University Osteosarcoma Longitudinal Project – Dr Mark Dunning

We have around 900 wolfhounds recruited for this study and currently NVS have said they don't need any further swabs. For those dogs already swabbed for this project **please remember to complete the health update surveys annually.** 

#### http://www.iwhealthgroup.co.uk/nottingham-university.html

For anyone who has experienced bone cancer in their dogs in the past, whether the dog was swabbed or not, there is a Treatment Survey to determine which treatments are offered by primary care vets and which are most successful. There are also two further surveys, one for wolfhound owners who have decided to amputate for reasons other than osteosarcoma and also owners who have never experienced either amputation or osteosarcoma.

**Survey 1** – please complete this survey if you have experience of amputation in your wolfhound but it was for a reason other than bone cancer: <u>http://www.surveymonkey.co.uk/r/IW-amputation</u>

**Survey 2** – Please complete this survey if you have never experienced either bone cancer/osteosarcoma or amputation in your wolfhound: http://www.surveymonkey.co.uk/r/canine amputation1

#### If your swabbed wolfhound gets a confirmed diagnosis of bone cancer

Whilst it is hoped that no wolfhound ever suffers from bone cancer again, if your dog is swabbed and gets a confirmed diagnosis of bone cancer, please get in touch with Mark to see how you can help. This is a large project with many angles and full details can be found on the webpage link above.

#### Nottingham Heart Disease Research – Prof. Malcolm Cobb and Dr Serena Brownlie-Sykes

By taking part in the IWHG Regional Heart Testing scheme you are contributing to this ongoing project, possibly the longest running veterinary research project ever! The results of your wolfhound's heart screening are recorded in the database and used by the team at Nottingham University to unravel the specifics of wolfhound heart disease. To book a slot and contribute to this valuable research whilst also looking after your own dogs heart please find a session closest to you and get in touch with Anne Vaudin.

http://www.iwhealthgroup.co.uk/dates-and-locations-.html

#### Nottingham Pneumonia Study – Dr Angela Bodey & Dr Mark Dunning

If your wolfhound has ever experienced pneumonia or any other type of respiratory disease or any type of nasal disease (snotty nose) we are collecting case studies so that our researchers may evaluate the most effective treatments and devise a recommended treatment protocol. We are very aware that wolfhounds are still dying of pneumonia, so please do all you can to help out, if you experience pneumonia with your wolfhound fill out the survey and let Angela know what treatment your dog received and what the outcome was. Please see all details and fill out the survey;

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http://www.iwhealthgroup.co.uk/pneumonia.html

## FCE "Puppy Paralysis" Research – Caroline

Irish Wolfhounds appear to suffer from a unique form of FCE, one which affects them in puppyhood, which is why this condition is also known as puppy paralysis. It is hoped that by studying the experience of wolfhounds affected by FCE, this research could determine what causes it and the most appropriate treatment for a favourable outcome. Ellen Kroll has written a comprehensive article about FCE which is available on our webpage. If your wolfhound has experienced any form of puppy paralysis or FCE please fill out the survey.

www.iwhealthgroup.co.uk/puppy-paralysis.html

#### Livershunt/Epilepsy & PRA Reporting Survey – Dr Maura Lyons

This is a simple form to record incidences of Liver shunt, Epilepsy and PRA. This enables the IWHG to monitor the prevalence of these diseases within the IW population. If you have experienced these conditions in your wolfhound, please fill out the survey with your experiences. <a href="http://www.iwhealthgroup.co.uk/liver-shunt.html">http://www.iwhealthgroup.co.uk/liver-shunt.html</a>

#### Dentition Survey – Caroline Sheppard

Caroline has been collecting photographic examples of jaw growth in wolfhound puppies to provide evidence concerning the eventual alignment of teeth in the adult wolfhound. The IW is on the KC Breed Watch list for instances of misaligned lower canines. However, there is evidence to suggest that if these are seen in a growing puppy, this misalignment could correct itself naturally or with targeted, non-invasive therapy. If you have a puppy with a teeth issue, please contact Caroline to share your experiences. http://www.iwhealthgroup.co.uk/about-the-study.html

#### Veteran Survey – Caroline Sheppard

The IWHG would like to hear about your veteran wolfhounds. If you have a wolfhound that has lived to over 7 years then please fill out the questionnaire. It includes details about lifestyle and environment to see if there is a correlation between any of these factors and longevity in wolfhounds. You can find the details and a link to the survey on

#### NVS Bloat Incidence Survey – Matthew Keane

Study investigating the factors influencing bloating and the development and outcome of GDV in Irish Wolfhounds in the UK. This project is based on owner reported incidences of bloat and GDV in their wolfhounds and comparison to dogs unaffected by bloating. Please complete the survey here...

http://www.iwhealthgroup.co.uk/health-surveys.html

#### Megaesophagus (ME) in Puppies

Although it is not believed that this condition is particularly common in the breed in comparison to other issues which affect our puppies i.e., Livershunt and FCE, there is sufficient interest to have generated an opportunity for research with Professor Jared Jaffey at Midwestern University College of Veterinary Medicine. It would be appreciated if anyone who has experienced ME in a puppy could contact Prof. Jaffey and provide details in order that an indication of frequency might be obtained. If anyone has an affected puppy being managed by diet and would be prepared to submit a blood sample for the ongoing genetic research, again please contact Prof Jaffey and he will send instructions to your vet regarding preparation of the sample.

Contact details are Jared Jaffey DVM, MS, DACVIM (SAIM),

Assistant Professor, Midwestern University College of Veterinary Medicine. Email:jjaffe@midwestern.edu

## BetterBred Genetic Diversity Project – Dr Maura Lyons

This project is designed to establish the genetic diversity of our breed, which in turn could help us maintain genetic diversity in the future by identifying dogs that carry less common genes and avoiding future bottlenecks.

We believe this could be a very important project given that we know our breed has a limited gene pool, but to what extent is unclear. The diversity test when complete, will offer a breeder one more tool in their quest to breed healthy typical sound hounds.

If you would like to add your dog to the study, If you would like to add your dog to the programme, the price of a test is currently held at \$50 and can be obtained <u>HERE.</u>

#### Congenital Blindness Survey – Jean Timmins

From time to time we hear of a puppy who was blind or had some degree of sight loss from birth. It does not appear to be something that is particularly common, but we would really appreciate hearing from anyone who has experienced congenital blindness in puppies and hear what diagnosis they were given and also how they and the hound coped living with the condition to allow a full and active life.

http://www.iwhealthgroup.co.uk/health-surveys.html

## **Quick Links to Surveys -**

**PNEUMONIA** 

PUPPY PARALYSIS - Fibrocartilaginous embolism (FCE) BONE CANCER TREATMENT – (Osteosarcoma) BLOAT - Gastric Dilatation/Volvulus (GDV) DENTITION LIVERSHUNT/PRA/EPILEPSY VETERAN

#### THANK YOU!

To stay in touch with everything healthwise:

Please sign up for notifications of announcements on our website here, http://www.iwhealthgroup.co.uk/home.h

Publications & Guides



#### DOWNLOAD FROM THE WEBSITE HERE

Guide to Buying an Irish Wolfhound Puppy

Breed Guide - Introducing your new Irish Wolfhound

Guide to anaesthesia

Neutering factsheet

Bloat (gastric dilatation volvulus, GDV)

Puppy paralysis (fibrocartilaginous embolism, FCE)

Heart disease (dilated cardiomyopathy, atrial fibrillation)

Megaoesophagus

Pneumonia for owners

Pneumonia for vets

Progressive retinal atrophy (PRA)

**Dentition Guide** 

<u>Heart Testing Sessions Current Dates and Locations</u> <u>Available here</u>

Heart Test Booking Form to book a session - click here

Livershunt Testing Forms

## Useful Downloads



The Irish Wolfhound Database is a free to use database of all Irish Wolfhounds of which its estimated around 98% of all hounds ever registered are in the database. The database is valuable to breeders but also of great importance to researchers that have projects involving the Wolfhound, providing them with a huge resource and pool of information to use and support their work.

#### How can you help?

The database when used for research is only as good as the information you provide, so if you have records of any hounds you have owned, bred, or puppies you have sold, please do consider enter the age and cause of death for each dog, your help is invaluable.

#### Email information directly here

## Contacts ..

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Health Group Website			



#### https://www.facebook.com/groups/IWhealthgroup



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